



RAT ANTI-MOUSE ENDOGLIN [CD105] MONOCLONAL ANTIBODY

CATALOG NUMBER:	CBL1358	QUANTITY:	500 µg
LOT NUMBER:		CONCENTRATION:	0.5 mg/mL
CLONE NAME:	MJ7/18	HOST/ISOTYPE:	Rt IgG _{2a} Kappa
ALTERNATE NAMES:	CD105; ancillary TGF-beta Receptor		

BACKGROUND: Endoglin is the regulatory component of the TGF-beta receptor complex. CD105 is a homodimer of 90 kDa subunits and is predominantly expressed on vascular endothelial cells. It is also found on pre-erythroblasts, macrophages and lymphoid and myeloid leukemic cells. High levels of mouse endoglin mRNA have been detected in ovary, uterus, and NCTC-2071 fibroblasts, and to a lesser extent, in heart and muscle. In addition, stromal cells in the connective tissue of various organs are also positive for endoglin expression. CD105 has been reported to have functions in adhesion and embryonic angiogenesis, and that MJ7/18 is a pan endothelial marker (with minimal reactivity with early hematopoietic cells). Both mouse and human CD105 exhibit >70% sequence homology in their cytoplasmic domains with type III transforming growth factor β (TGFβ) receptor.

SPECIFICITY: Specifically recognizes mouse CD105, known as endoglin.

APPLICATIONS:

Flow Cytometry: ≤ 1 µg per 10⁶ cells in 100 µL volume

Immunohistochemistry: Fresh frozen or acetone fixed tissue specimens. 1:10-1:50 Not recommended for formalin fixed paraffin tissues.

Immunoprecipitation: Use rabbit anti-rat secondary antibody, followed by protein A, or anti-rat beads for recovery.

Western blot: 90kDa band under reducing conditions: 1:500-1:1000 dilution, membrane preparations recommended; mouse vascular endothelial cells recommended as a positive control.

Optimal working dilutions must be determined by the end user.

SPECIES REACTIVITY: Mouse. Reactivity with other species has not been determined.

PRESENTATION: Purified immunoglobulin in 100 mM borate buffered saline containing no preservatives.

STORAGE/HANDLING: Maintain at 2-8°C for up to 12 months from date of receipt.

REFERENCES:

Kruse, A et al. (1999). Specialized Patterns of Vascular Differentiation Antigens in the Pregnant Mouse Uterus and the Placenta. *Biol Reproduct* **61** : 1393-1401.

Ge, AZ and Butcher, EC. (1994). Cloning and expression of a cDNA encoding mouse endoglin, an endothelial cell TGF-beta ligand.. *Gene* **138** : 201-206.

Related : Garton, KJ et al. (2003). Stimulated Shedding of Vascular Cell Adhesion Molecule 1 (VCAM-1) Is Mediated by Tumor Necrosis Factor--converting Enzyme (ADAM 17). *J Biol Chem* **278(39)** : 37459-37464.



Related : Vajkoczy, P et al. (2003). Multistep Nature of Microvascular Recruitment of Ex Vivo–expanded Embryonic Endothelial Progenitor Cells during Tumor Angiogenesis . *J Exp Med* **197(12)** : 1755-1765.

Related : Rodriguez-Pena, A et al. (2002). Endoglin Upregulation During Experimental Renal Interstitial Fibrosis in Mice . *Hypertension* **40** : 713-.

Related : Lidington, EA et al. (2002). Conditional immortalization of growth factor-responsive cardiac endothelial cells from H-2Kb-tsA58 mice . *Am J Physiol Cell Physiol* **282** : C67-C74.

Related : Raab, U et al. (1999). Expression of normal and truncated forms of human endoglin. *Biochem J* **339** : 579-588.

Related : Ringelmann, B et al. (1999). Expression of Laminin alpha1, alpha2, alpha4, and alpha5 Chains, Fibronectin, and Tenascin-C in Skeletal Muscle of Dystrophic 129ReJ dy/dy Mice. *Exp Cell Res* **246** : 165-182.

Related : Izawa, D et al. (1999). Expression profile of active genes in mouse lymph node high endothelial cells . *Int Immuno* **11(12)** : 1989-1998.

Related : Finley, MFA et al. (1999). BMP-4 Inhibits Neural Differentiation of Murine Embryonic Stem Cells. *J Neurobiol* **40** : 271-287.

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